

MALACOLOGY.—*Two new Recent cone shells from the Western Atlantic (Conidae).*¹

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Two species of the genus *Conus* were received by the United States National Museum a few years ago from two dredging expeditions off southeastern United States. It appears that both species are undescribed, and we take pleasure in naming them for Austin H. Clark, retiring curator of echinoderms, United States National Museum. The first of these species, collected by the U. S. Fish and Wildlife Service trawler *Pelican* in 1938, is strikingly different from any known Recent species in the Western Atlantic. The second, dredged off southern Florida by the *Anton Dohrn*, is somewhat like the well-known species *Conus stimpsoni* Dall.

***Conus clarki*, n. sp.**

Figs. 1-6

Description.—Shell 36 mm ($1\frac{1}{2}$ inches) in length, relatively heavy, broadly fusiform, strongly spirally sculptured, and chalk-white in color. Whorls 12, the last whorl with a beaded carina at the shoulder, rounded at the periphery, and concave toward the base. Spire extended, pointed, concave, and slightly more than one-third of the entire length of the shell. Angle of spire about 70°. Nuclear whorls $1\frac{1}{2}$, glassy-smooth. Aperture oblique, long and narrow, with a deep, rounded sinus at the top. Outer lip sharp, thin, and weakly crenulated. The lip is sinuate with the middle portion being advanced, and the lower portion retracted enough to make the end of the siphonal canal considerably open. Spiral sculpture consists of 27 to 30 very strong, raised, squarish, and beaded cords. The topmost spiral cord bears the largest beads, which in previous whorls may be seen just above the impressed wavy sutural line. The surface of these beads is obliquely scratched by fine irregular lines. Top of the whorls slightly concave and with three to five unequal fine spiral threads. Axial sculpture consists of numerous fine, sharply raised, arched threads which cross the spiral threads on the tops of the whorls (anal fasciole). Color of shell chalk-white. In one paratype specimen there are very weak reddish squares of color between the beads on the

spiral cords. Periostracum thin, deciduous, light brown, and axially striate.

Animal (Figs. 1-5) typical of the genus *Conus*, with a rather long siphonal extension of the mantle, which is flecked with fine black striations. Side of foot suffused with gray along the lower border. Verges large, 7 mm in length, shaped like a meat cleaver, with a slender, curved point at the end. Verges has fused lamellations on its sides and base. Poison gland and radular sheath typical of the genus. About 30 harpoonlike teeth were found in the sheath. Tooth short with one small barb at the end, two on the side and one at the base (see Fig. 3).

MEASUREMENTS (MM)

Length	Width	Number of Whorls
36.0	16.0	11.0 (holotype)
36.0	16.0	11.0 (paratype male)
34.4	15.5	10.8

Types.—The holotype is U.S.N.M. no. 485740; one paratype, U.S.N.M. no. 488465; and another paratype is in the Museum of Comparative Zoology.

Type locality.—50 miles south-southwest of Marsh Island, Iberia County, La. (lat. 28° 27.0'N.; long. 92° 14.0'W.). Dredged by the U. S. Fish and Wildlife Service trawler *Pelican*, station 94-1, November 13, 1938, in 29 fathoms.

Range.—Known only from the type locality.

Remarks.—There is no living species described from the Western Atlantic that approximates *C. clarki* in the characters of heavy, raised, square, spiral cords, rounded periphery, attenuated basal portion (giving it a turniplike shape) and the prominent sharp axial, striae between the spiral cords. It is nearest in characters to the middle Miocene fossil *Conus (Lepticonus) multiliratus* Böse, 1906, from Tuxtepec, Oaxaca, Mexico, and its subspecies *gaza* Johnson and Pilsbry, 1911, from the Dominican Republic, Jamaica, Panama, and Colombia. However, the Recent *C. clarki* is much more turnip-shaped, and its cords at the shoulder of the whorl are strongly beaded.

***Conus austini*, n. sp.**

Fig. 7

Description.—Shell 56 mm in length, heavy, spirally sculptured, and dull-white in color. Whorls 14, almost straight-sided, but very slightly

¹ Published by permission of the Secretary of the Smithsonian Institution. Received October 6, 1950.

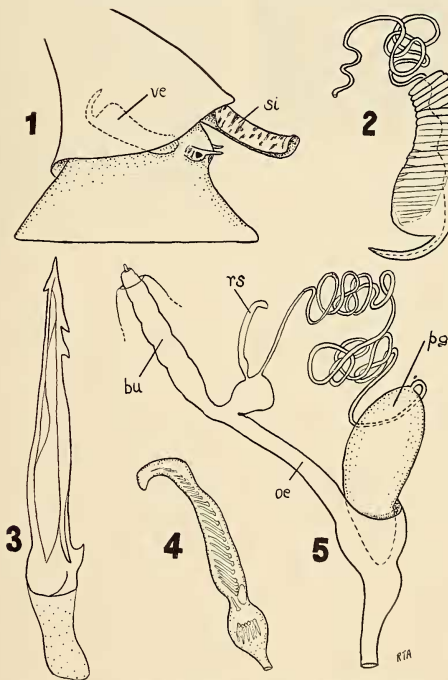
concave toward the base. Shoulders of whorl slightly rounded in adults but carinate in younger specimens. Spire extended, pointed, slightly concave, and about one-quarter the entire length of the shell. Angle of spire about 80° . Nuclear whorls $1\frac{1}{2}$, glassy-smooth. Next five whorls sculptured by a single, beaded carina, which in the succeeding whorls becomes smooth and located just above the suture. Aperture oblique, long and narrow, with a deep, rounded sinus at the top. Outer lip thin, sharp, and weakly crenulate. Spiral sculpture consisting of about 40 fairly well-developed, irregularly sized, rounded cords, which become more prominent basally. Three to five low, weak, spiral threads present on the top of the whorls, which are obliquely crossed by the arched growth

lines of the anal sinus. There is a tendency in some specimens to produce alternately small and large cords. Between the cords the axial sculpture consists of fine, distinct, raised striae. Periostracum moderately thick, when dry becoming axially striate and light brownish yellow in color. Animal and operculum unknown.

MEASUREMENTS (MM)

Length	Width	Number of Whorls
55.5	25.3	14 (holotype Tortugas)
43.1	22.0	13 (paratype, Tortugas)
51.0	25.5	13 (paratype, Antigua)

Types.—The holotype is U.S.N.M. no. 603017; a paratype from the same dredging haul, U.S.N.M. no. 421721; a third paratype, U.S.N.M. no.



FIGS. 1-5.—*Conus clarki*, n. sp.: 1, Side view of male animal showing siphon (si) and position of verge (ve) ($\times 3$); 2, side view of verge and vas deferens ($\times 10$); 3, single tooth ($\times 50$); 4, radular sac showing arrangement of unused teeth ($\times 25$); 5, semidiagrammatic drawing of anterior alimentary system and poison apparatus, bu, buccal mass; rs, radular sac; pg, poison gland ($\times 15$).

603018, was dredged by the *Eolis, Jr.* by J. B. Henderson at the entrance of English Harbour, Antigua, Lesser Antilles, June 21, 1918.

Type locality.—Southeast of Loggerhead Key, Dry Tortugas, Florida. Dredged in 40 to 46 fathoms by W. L. Schmitt from the *Anton Dohrn*, June 21, 1932.

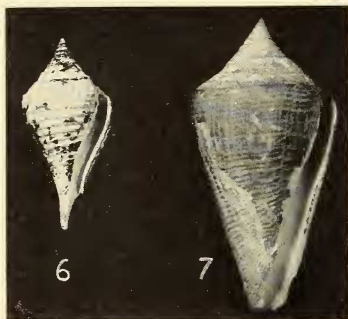


FIG. 6.—*Conus clarki*, n. sp., holotype. FIG. 7.—*Conus austini*, n. sp., holotype. (Both natural size.)

Range.—From Dry Tortugas, Fla., south to Antigua Island, Lesser Antilles.

Remarks.—This species is similar to *C. stimpsoni* Dall but differs in being larger, having raised spiral cords instead of incised grooves, having numerous fine but distinct axial striae between the cords, and lacking any color markings. A young specimen of *C. austini* displays a number of axial wrinkles in the middle of the body whorl, a variable character common to some Miocene fossil species.

A similar species exists in the Gurabo formation, Dominican Republic (Miocene). Specimens of this fossil are in the U. S. National Museum, mixed in with lots labeled *C. planiliratus* Sowerby. It is apparently undescribed and differs from the Recent *C. austini* in having a slightly shorter spire, being half as high and rarely showing the tiny, angled keel on the shoulder of the whorls in the spire. Otherwise the shape and sculpture are extremely similar. *C. stenostoma* Sowerby, a Miocene fossil from the Dominican Republic, is also very close but has a very low spire and a sharper shoulder.

MALACOLOGY.—*A new scaphopod mollusk, Cadulus austinclarki, from the Gulf of California.*¹ WILLIAM K. EMERSON, Research Fellow, Allan Hancock Foundation. (Communicated by Harald A. Rehder.)

A recent visit to the United States National Museum provided me an opportunity to examine the Scaphopoda contained in the vast collection of the division of mollusks. A previously unrecognized species of *Cadulus* from the Gulf of California is here described.

I am indebted to Dr. Harald A. Rehder, curator of mollusks, for access to the facilities of the division, and to Frederick M. Bayer, assistant curator of marine invertebrates, for providing the camera-lucida drawing and the photograph. I take pleasure in dedicating this new species to Austin H. Clark, retiring curator of echinoderms in the United States National Museum.

Family SIPHONODENTALIIDAE

Genus *Cadulus* Philippi, 1844

♂ Genotype (by monotypy): *Dentalium ovulum* Philippi, 1844, Recent; Mediterranean Sea.

¹ Received October 6, 1950.

Subgenus **Platyschides** Henderson, 1920

Subgenotype (by original designation): *Cadulus grandis* Verrill, 1884; Recent, West Atlantic, north of Cape Hatteras.

Shell small to relatively large, moderately curved, greatest swelling between the middle and oral aperture, posterior portion and aperture slightly flattened dorsoventrally; surface without sculpture, smooth and polished; apex possessing four rather broad, but shallow notches; white.

This group differs from the subgenus *Poly-schides* in having the apical notches greatly reduced. The slits vary in size from small indentations, which appear as chipped-out portions of the margin, to minute features requiring considerable magnification in order to ascertain the structure. There are many Recent and Tertiary species.

***Cadulus (Platyschides) austinclarki*, n. sp.**

Figs. 1, 2

Shell is minute, fairly solid, vitreous, semi-transparent, very slender, moderately curved,